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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,437	03/17/2004	Douglas W. Johnson	10378US01	3520

7590 09/12/2007  
Attention: Eric D. Levinson  
Imation Corp.  
Legal Affairs  
P.O. Box 64898  
St. Paul, MN 55164-0898

EXAMINER
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BLOUIN, MARK S

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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09/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/802,437

Applicant(s)

JOHNSON, DOUGLAS W.

Examiner

Mark Blouin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/8/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

### **Detailed Action**

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-15 recite the limitation "the length of tape". There is insufficient antecedent basis for this limitation in the claim. The length of tape should be defined – is the length of tape the entire amount of tape or a specific length from one point to another in the apparatus?
3. Claim 18 recites the limitation "the longitudinal stress waves". There is insufficient antecedent basis for this limitation in the claim.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lelandais (US 4,310,863).
6. Regarding Claim 1, Lelandais shows (Figs. 1-3) a tape guide for use with a data storage tape system, the tape guide (16,32) comprising: a bearing portion (shaft as shown in Fig 2b by inner dashed line); and a tape interface portion (60,62) extending from the bearing portion, the tape interface portion configured to support a data storage tape near a read/write head (22,24), but does not show wherein upon longitudinal movement of the data storage tape across the tape

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interface portion, the tape guide limits a spectral content of data storage tape lateral movement measured at the read/write head to less than 0.1  $\mu\text{m}$  at lateral movement frequencies between 50 and 500 cycles/meter.

Lelandais does not set forth these parameters in this claim. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the tape recorder of Lelandais with the claimed parameters through routine experimentation and optimization in the absence of criticality. One of ordinary skill in the art would have been motivated to do so in order to eliminate lateral movement of the tape provide more accurate reading and writing on the tape. More particularly, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Swain et al.*, 33 CCPA (Patents) 1250, 156 F.2d 239 70 USPQ 412; *Minnesota Mining and Mfg. Co. v Coe*, 69 App. D.C. 217, 99 F. 2d 986, 38 USPQ 213; *Allen et al. v Coe*, 77 App. D.C. 324, 135 F. 2d 11, 57 USPQ 136.

7. Regarding Claim 2, Lelandais shows (Figs. 1-3) the tape guide (16,32), wherein the tape interface portion (60,62) rotates (inherent in the roller) with respect to the bearing portion (shaft as shown in Fig 2b by inner dashed line).

8. Regarding Claim 3, Lelandais shows (Figs. 1-3) the tape guide (16,32), wherein the radial runout (variation of radius) of the tape guide is less than 0.5 mil (shown as perfect circle where radial runout is zero).

9. Regarding Claim 4, Lelandais shows (Figs. 1-3) the tape guide, wherein the tape interface portion (60,62) includes an outer surface (62) configured and positioned to have intimate contact with the data storage tape as the data storage tape passes over the tape interface portion.

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10. Regarding Claim 5, Lelandais shows (Figs. 1-3) the tape guide, wherein the outer surface includes a plurality of substantially concentric grooves (64).

11. Regarding Claim 6, Lelandais shows (Figs. 1-3) the tape guide, wherein the plurality of substantially concentric grooves are configured to remove air from between the data storage tape and the outer surface of the tape interface portion (Col 3, lines 11-13).

12. Regarding Claim 7, Lelandais shows (Figs. 1-3) the tape guide, wherein the tape interface portion is characterized by the absence of flanges (there are none).

13. Regarding Claim 8, Lelandais shows (Figs. 1-3) a data storage tape system comprising: a read/write head (22,24) configured to read from or write to a data storage tape; a first tape guide (16) spaced from the read/write head; and a second tape guide (32) spaced from the read/write head opposite the first tape guide, the first and second tape guides configured to support the data storage tape near the read/write head; but does not show wherein upon longitudinal movement of the data storage tape across the first and second tape guides, the first and second tape guides limit a spectral content of the data storage tape lateral movement measured at the read/write head to less than 0.1 g m at lateral movement frequencies between 50 and 500 cycles/meter.

Lelandais does not set forth these parameters in this claim. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the tape recorder of Lelandais with the claimed parameters through routine experimentation and optimization in the absence of criticality. One of ordinary skill in the art would have been motivated to do so in order to eliminate lateral movement of the tape provide more accurate reading and writing on the tape. More particularly, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by

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routine experimentation. *In re Swain et al.*, 33 CCPA (Patents) 1250, 156 F.2d 239 70 USPQ 412; *Minnesota Mining and Mfg. Co. v Coe*, 69 App. D.C. 217, 99 F. 2d 986, 38 USPQ 213; *Allen et al. v Coe*, 77 App. D.C. 324, 135 F. 2d 11, 57 USPQ 136.

14. Regarding Claim 9, Lelandais shows (Figs. 1-3) the data storage tape system, wherein at least one of the first (16) and second tape (32) guides is a rotating guide and the radial runout of each of the rotating guides is less than 0.5 mil (shown as perfect circle where radial runout is zero).

15. Regarding Claim 10, Lelandais shows (Figs. 1-3) the data storage tape system, wherein at least one of the first (16) and second (32) tape guides is configured and positioned to have intimate contact with the data storage tape as the data storage tape passes over the respective tape guide (tape rolls across surface 62).

16. Regarding Claim 11, Lelandais shows (Figs. 1-3) the data storage tape system, wherein **both** of the first (16) and second (32) tape guides are configured and positioned to have intimate contact with the data storage tape as the data storage tape passes over the respective tape guide.

17. Regarding Claim 12, Lelandais shows (Figs. 1-3) the data storage tape system, wherein at least one of the first and second tape guides defines an outer surface (62) that includes a plurality of substantially concentric grooves (64) configured to remove air from between the data storage tape and the outer surface of the respective tape guide.

18. Regarding Claim 13, Lelandais shows (Figs. 1-3) the data storage tape system, wherein a center of the first tape (16) guide and the second (32) tape guide are each spaced from a center of the read/write head less than twice the width of the length of data storage tape (the distance, and thus the positioning is ambiguous).

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19. Regarding Claim 14, Lelandais shows (Figs. 1-3) the data storage tape system, wherein the first tape (16) guide interacts with the length of data storage tape to define a degree of wrap greater than  $30^{\circ}$  (Figure 1 shows the tape wrapped almost 180 degrees).

20. Regarding Claim 15, Lelandais shows (Figs. 1-3) the data storage tape system, wherein the second tape (32) guide interacts with the length of data storage tape to define a degree of wrap greater than  $30^{\circ}$  (Figure 1 shows the tape wrapped almost 180 degrees).

21. Regarding Claim 16, Lelandais shows (Figs. 1-3) the data storage tape system, wherein the first and second tape guides are maintained in a data storage tape cartridge.

Lelandais does not show a cartridge. Official notice is taken that it is well known in the art to use tape guides in a cartridge. One of ordinary skill in the art would have been motivated to use the tape guides of Lelandais in a cartridge to accurately position the tape within the cartridge.

22. Regarding Claim 17, Lelandais shows (Figs. 1-3) the data storage tape system, wherein the first and second tape guides are maintained in a data storage tape drive (magnetic tape recorder).

23. Regarding Claim 18, Lelandais shows (Figs. 1-3) the data storage tape system, wherein the first (16) and second (32) tape guides decrease the magnitude of the longitudinal stress waves in the data storage tape traveling between the first and second tape guides (inherent).

24. Regarding Claim 19, Lelandais shows (Figs. 1-3) the data storage tape system, further comprising: a first collateral tape guide (18) spaced from the first tape guide (16) opposite the read/write head; and a second collateral tape guide (30) spaced from the second tape guide (32) opposite the read/write head; wherein the first and second collateral tape guides limit the

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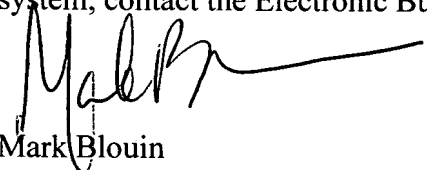
amplitude (inherent) of tape transverse movement across the first and second collateral tape guides, respectively.

***Conclusion***

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Blouin whose telephone number is 571-272-7583. The examiner can normally be reached on M-F from 6:00 to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. William Korzuch, can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Blouin  
Patent Examiner  
Art Unit 2627  
September 4, 2007